Z-TWS4

MULTI-FUNCTION CONTROL UNIT, STRATON IEC 61131-3 / LINUX EMBEDDED

Highlights

- **Electrical communication standards: IEC 60870-5-101 and IEC 60870-5- 104 Master / Slave, IEC 61850**

- **IEC 61131-3 SoftPLC Straton integration**

- **RTU / Gateway interface, ModBUS RTU - ModBUS TCP protocol conversion**

- **Virtual network connection and point-to-point tunnelling**

- **Redundant Configuration for plant automations**

- **Configurable as web server and TCP-IP node**

- **SCADA / EMS / Web-based platforms compatibility**

Z-TWS4 is a high-level Control System suitable for energy Management (IEC 60870-5-101, IEC 60870-5-104, IEC 61850) and plant automation (Straton - Soft PLC IEC 61131-3). Z-TWS4 is also a CPU Linux-based for data acquisition and control application. Through to the integration with IDE Straton environment, Z-TWS4 supports specific communication protocols in the energy applications such as IEC 60870, IEC 61850. About remote management applications, Straton can be integrated with IEC 60870-5-101 and IEC 60870-5-104 Master and Slave. Moreover with Straton, Z-TWS4 can be an IEC 61850 Server as well as Client so it's able to support functions as RTU /Gateway, ModBUS RTU - ModBUS TCP conversion, virtual network creation via internet and point-to-point tunnelling.

100% Made & Designed in Italy

SENECA

www.seneca.it

Z-TWS4

MULTI-FUNCTION CONTROL UNIT, STRATON
IEC 61131-3 / LINUX EMBEDDED

TECHNICAL DATA

GENERAL DATA

Power Supply	10..40 Vdc; 19..28 Vac
Power Consumption	Max 6 W
Isolation	Max 1.500 V
LED Status indicators	Power Supply Ethernet Communication Ethernet Data Transmission Serial Data Transmission
Protection Degree	IP20
Operating Temperature	-10..+55°C
Dimension	100 x 112 x 35 mm
Weight	250 g
Enclosure	Nylon 6, 30% fiberglass filled, self extinguishing class V0
Hot swapping	Yes
Connection	Removable 3-way screw terminals, 5.08 mm pitch Rear IDC10 connector for DIN rail RJ45 - 4/54, RJ45, USB, Micro USB Plug-in Micro SD Card
Mounting	35 mm DIN rail (IEC EN 60715)

COMMUNICATION

Ethernet	Nr. 2 Ethernet 10/100 Mbps (RJ45) ports
Serial ports	Nr. 1 RS232 Nr. 1 RS485 Nr. 1 RS485 ModBUS
USB	Nr. 1 Micro USB Virtual COM Nr 1 USB host
Industrial protocols	ModBUS TCP-IP, ModBUS RTU, custom protocols
Network protocols	PPP, HTTP, FTP, SMTP, OpenVPN
Energy protocols	IEC 60870-101/104, IEC 61850

CPU / MEMORY

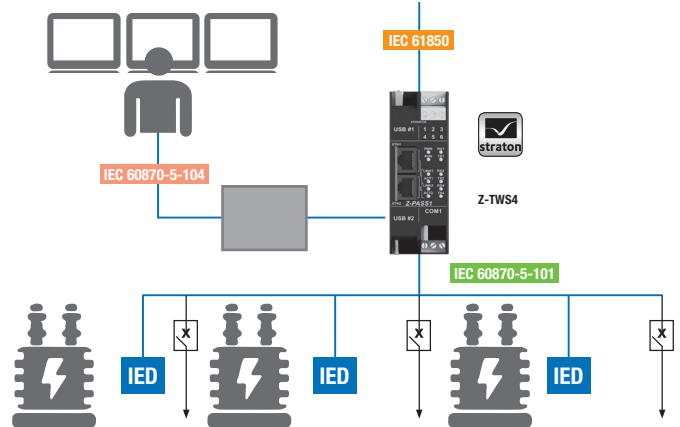|	
SofPLC	IEC 61131-3 Straton
Processor	ARM9 32-bit @ 400 Mhz
Flash Memory (data)	1 GB
RAM	64 MB
FeRAM	64 kB
Slot Micro SD	SD Card fino a 32 GB

SETTING

System Software	Z-NET4 / StratON / OPC Server
Build-in Web Editor	Yes
Build-in datalogger	Yes
PLC programming	IEC 61131 (Straton) with specifiic libraries

STANDARD

Approvals	CE
Norms	EN 61000-6-4, EN 61000-6-2, EN 60950, IEC 61131

APPLICATION EXAMPLE

ORDER CODES

Code	Description
CONTROLLERS	
Z-TWS4-L-0	IEC 61131 multifunction controller, Linux based, OEM version
Z-TWS4-L-K	IEC 61131 multifunction controller, Linux based, USB-SW-KEY
Z-TWS4-S-0	IEC 61131 multifunction controller, workbench Straton, OEM version
Z-TWS4-S-K	IEC 61131 multifunction controller, workbench Straton, USB-SW-KEY
Z-TWS4-E-0	IEC 61131 advanced multi-function controlller, including energy protocols (IEC 60870-5-101, IEC 60870-5-104, IEC 61850) support, Straton workbench, OEM version
Z-TWS4-E-K	IEC 61131 advanced multi-function controlller, including energy protocols (IEC 60870-5-101, IEC 60870-5-104, IEC 61850) support, Straton workbench, CS-DB9M-MEF-PH cable, USB-SW-KEY
SOFTWARE	
OPC-SERVER-IO-1	OPC Server I/O 100 tags
OPC-SERVER-IO-2	OPC Server I/O 500 tags
OPC-SERVER-IO-3	OPC Server I/O unlimited tags
OPC-SERVER-MB-1	OPC Server ModBUS Slave 100 tags
OPC-SERVER-MB-2	OPC Server ModBUS Slave 500 tags
OPC-SERVER-MB-3	OPC Server ModBUS Slave unlimited tags
STRATON-D-USB	Straton activation key for IEC 61131 controllers
STRATON-IDE256	Straton development environment, 256 tags, USB activation key
STRATON-IDE512	Straton development environment, 512 tags, USB activation key
STRATON-IDEUN	Straton development environment, unlimtited tags, USB activation key
STRATON-IEC-E1	IEC 60870-5-101/104 Slave activation license
STRATON-IEC-E2	IEC 61850 Server activation license
STRATON-IEC-E3	IEC 60870-5-101/104 slave + IEC 61850 Server activation license
STRATON-IEC-E4	IEC 60870-5-101/104 Master / Slave activation license
STRATON-IEC-E5	IEC 61850 Client / Server activation license
STRATON-IEC-EF	IEC 60870-5-101/104 Master / Slave + IEC 61850 Client / Server activation license
STRATON-SP	Straton SENECA Package - CPU Seneca Installer suite
STRATON-WB	Straton workbench IEC 61131 free editor
Z-NET4	IEC 61131 controllers and I/O system SENECA configurator
ACCESSORIES	
MSD	Micro SD memory card with adapter
USB-SW-KEY	USB-key with software, libraries, platforms and development environments, manuals for Multifunction controllers
Z-PC-DIN1-35	DIN rail bus system 1 slot 35 mm
Z-PC-DINAL1-35	DIN rail bus system head terminal + 1 slot 35 mm
Z-POWER-115-15VA	19 Vac transformer, 115 / 15 VA
Z-POWER-230-15VA	19 Vac transformer, 230 / 15 VA
Z-POWER-230-25VA	19 Vac transformer, 230 / 25 VA
Z-SUPPLY	Single-phase switching power supply 24V @ 1.5A